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Profile

December 1977

Griffiss AFB DoD Winner

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Counselors' Corner

This month's PROFILE has the central theme of showing how the military is working to maintain harmony with its environment, conserve energy and natural resources and return land and water to a natural state.

Bases and posts cited in this issue were judged best by their service. Two, Griffiss AFB, N.Y., and Marine Corps Air Station Kaneohe Bay, Hawaii, have won Department of Defense Awards. Marine Corps' Camp Lejeune, N.C., was named first among all U. S. military installations by the Agriculture Department in applying conservation measures to the land. The 1977 Alabama Governor's Environmental Quality Award was given to Ft. McClellan, Ala., for programs to improve areas on the post and in local community areas.

Although award winning installations are highlighted, each Army post, Navy, Marine Corps and Air Force base, as well as all Coast Guard installations, is deeply involved in environmental protection, natural resources conservation and energy conservation.

The science fair program helps the student as well as the military. Science students who excel at regional and state science fairs may enter Navy-sponsored national competition. The 16 winners will receive a one-week, expense-paid trip to Hawaii next summer to visit scientific facilities. Interested regional and state student science fair directors or representatives may write to Navy Science Cruiser Program, Office of Naval Research (Code 733), 800 N. Quincy St., Arlington, Va., 22217, for further details.

Military service has long been a viable employment option for youth. The Easton (Pa.) Area School District has recognized this and is doing something about it.

Its five guidance counselors serve approximately 650 graduating seniors each year. One counselor, Darrien Smith, has been unofficially designated as liaison to the military. Mr. Smith has arranged for recruiters from all the services to visit Easton Area High School one afternoon a month (individual appointments scheduled as needed) to counsel individuals about military opportunities, talk to a class about military history or speak about a topic directly related to students.

Recruiters meet in small conference rooms or a large group instruction area, place materials in literature racks and use the school's videotaping system.

Armed forces visitation day requires very little other than planning, coordination and open lines of communication. Our thanks to Journalist First Class Denise Gasti, Public Affairs Office, Navy Recruiting District, Harrisburg, Pa., for bringing this worthy program to our attention.

About the cover

Bruce Mero, natural resources manager at Griffiss AFB, drew this month's cover depicting the co-existence of the base, the city of Rome, N. Y., and the environment. Mero has a bachelor of arts degree in environmental science and an art degree, both from Syracuse University, and a bachelor of science degree in forestry and a degree in landscape architecture, both from the State University of New York at Syracuse.

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The purpose of this magazine is to inform young people and guidance personnel about benefits, opportunities, privileges and programs of military service.

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Shooting the stars

ABOARD USS CORONADO — Braving the cold night winds of the open sea, the lone sailor stands on the ship's bridge wing gazing up into a star-studded sky. Pausing, he writes some figures on a pad of paper and returns to the warmth of the pilot house.

This scene could be a passage from a novel of the high seas. In fact, however, it is one of many vital functions of a Navy quartermaster aboard the Atlantic Fleet amphibious transport dock Coronado (LPD 11).

''Through celestial readings, we can pinpoint our location and verify ranges and bearings,'' explains Richard C. Rumple, Jr., a quartermaster second class aboard the 16,800-ton Coronado.

As a quartermaster, he plays an important role in the navigational safety of this amphibious ship.

''We use visual bearings, radar and celestial readings to ensure that Coronado navigates the oceans with maximum accuracy and safety,'' says the 22-year-old native of Spencer, Ind.

QM2 Rumple is departmental leading petty officer, and maintains the ship's deck log, an official record of ship's movements. He also instructs new personnel in duties and responsibilities of a quartermaster.

''As a quartermaster, it's imperative that I remain alert at all times,'' he states. ''A mistake in judgment or lack of attentiveness could result in an at-sea collision or a grounding.

''A quartermaster must be completely confident of his decisions.

Silhouetted by the setting sun on the Atlantic Ocean, Rumple uses a sextant to figure a course for his ship, the USS Coronado. (Photo by Milt Putnam)

Whether it's initiating a course change or pinpointing the times of sunrise and sunset, it's absolutely necessary that the quartermaster be exact.''

Rumple's constant perfection in performance and appearance onboard Coronado has netted him the honorary title, ''Sailor of the Quarter.'' He also leads a field of candidates for the command's ''Sailor of the Year.'' Both awards are bestowed upon the sailor judged the most proficient in his field and ''the best representative of the highest traditions of naval service.''

As a Navy quartermaster, 22-year-old Richard Rumple, Jr. plots a course to be followed by his ship, the 16,800-ton amphibious ship USS Coronado. (Photo by Milt Putnam)

''The responsibilities of my job and the opportunity to experience the lifestyles of people in different countries have helped me mature quite a bit,'' Rumple says.

Since reporting to Coronado in January 1974, the young Navyman has helped in a number of major naval operations.

''I participated in evacuation of Americans from Beirut, Lebanon last year and served aboard Coronado when deployed as an alert force off the coast of Cyprus during that 1975 crisis.''

By use of a "squawk box" Rumple can talk with other men in control of his ship and advise them of changes to their course. It's his job as a Navy quartermaster to outline a safe route of travel for the USS Coronado. (Photo by Milt Putnam)

Selected young Navy people setting their sights on the quartermaster rating attend four weeks' intensive training at Service School Command in either Orlando, Fla., or San Diego, Calif. Training includes instruction on procedures for assisting navigators with planning, maintaining and correcting a ship's course at sea. They also study steering techniques. Rounding out the curriculum are classes explaining how to read compasses, depth finders, radio direction finders and long range finders and long range aids to navigation [LORAN] receivers.

story by Lon Cabot

Public Affairs Center, Norfolk, Va.

Oil spills--

dirty work mission

Oil, oil, oil, everyone wants oil. Well, here's your oil: that slick in your water glass, the oily taste in fish and fowl, or that mucky dye in your swim suit.

No one wants oil under those conditions. In recent years, there have been many cases across the nation where ''oil of neglect'' has shown up in the wrong places.

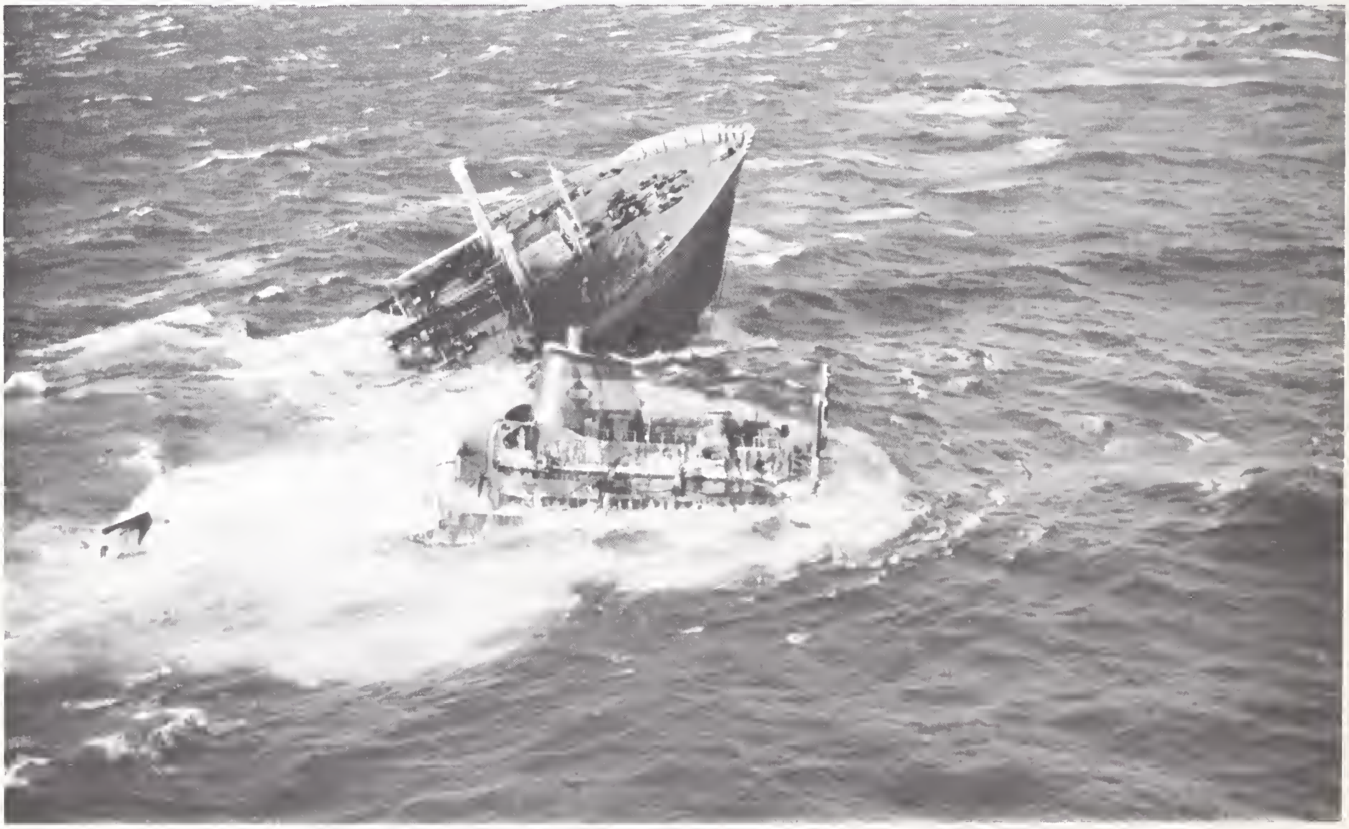
This unwanted oil has been dumped, either carelessly or by accident, into our environment. The battle against pollution of our nation's waters has taken on new fighters, being led to a great extent by the U. S. Coast Guard and its National Strike Force (NSF) and Airborne Oil Surveillance System (AOSS).

These programs have a two-part common goal of preventing and combating marine pollution.

The NSF is organized into three 20-man teams – Pacific, Gulf and Atlantic, home-based respectively at Coast Guard Base San Francisco; National Aerospace Administration Test Facility, Bay St. Louis, Miss., and Coast Guard Air Station, Elizabeth City, N.C.

Since formation of the force in 1973, these teams have gone to hundreds of potential or actual spills, bringing their equipment and expertise. Members sometimes risk their lives to salvage oil, contain spills and help in clean-up operations.

Besides being engaged in the overall clean-up efforts at a spill site, strike teams are continually testing new equipment and methods for clean-up operations. They also participate in the Coast Guard's overall efforts of educating the public about prevention of marine pollution.



The SS Argo Merchant, broken in two, is pulled under in a sea of foam after the tanker split December 1976. Atlantic Strike Team members, operating from the decks of the ship, battled weather and surf trying to save the tanker and contain the oil spill. (U. S. Coast Guard Photo)

Coast Guard Atlantic Strike Team members show how an oil skimmer is used for recovering oil during a simulated oil spill. (U. S. Coast Guard Photo)

These Coast Guard pollution control and clean-up personnel have assisted in pollution incidents in many parts of the world. They have been in the Straits of Malacca, near Singapore; at Limetree Bay in the Virgin Islands; off the coast of Chile; on the Mississippi River, near New Orleans; at Marcus Hook, Pa., and near Nantucket Island, Mass.

The pollution fighters are generally in their mid-20s or 30s. Most have served at least five years in the Coast Guard before being accepted into a team. They are cross-trained in all the rescue and salvage techniques used by the teams. Formal training and actual experience also contribute to a high degree of efficiency in the areas of oil dispersement, diving, containment, recovery, surveillance, ocean engineering and marine ecology.

Equipment available to the strike teams includes ADAPTS (Air Deliverable Anti-Pollution Transfer System), lightweight high seas oil containment barriers, high seas oil recovery systems, and portable on-site communications systems, together with video-tape recording equipment, all portable and deliverable by C-130 transport plane.

The C-130 aircraft has also become the work horse for AOSS aiding in the detection of oil discharges and providing documentation to implement enforcement action against polluters. The AOSS internal electronics and operator stations are mounted on a standard C-130 cargo pallet and can be installed or removed quickly from the plane.

The system uses a side-looking radar to detect and map the extent of oil spills up to 25 miles along each side of the aircraft's flight path. This, along with a passive microwave imager, provides AOSS with a day/night, nearly all-weather capability. The system also includes an aerial reconnaissance camera and a multi-channel line scanner for high resolution documentation of oily discharges and suspected violators.

The four AOSS sensors and a position reference system are integrated by means of a computer-controlled operator console within the aircraft. This arrangement permits the operator

Men of the Atlantic Strike Team scoop samples of absorbant-C used to contain oil spills. This powdery chemical swells like masses of sponges, absorbs oil and can then be collected into bags and nets. Analysis of samples reveals amounts of oil absorbed and the type of oil spilled. (Photo by CWO Kendall J. Parsons)

to view and interpret the sensor data as it comes in and to make on-the-spot decisions when a suspected pollution violator shows up. Imagery from all the sensors can be used as evidence in enforcement proceedings.

Operating out of Elizabeth City, the AOSS-equipped plane flies routine surveillance patrols along the East Coast. The purpose of these patrols is to detect illegal oil discharges, particularly improper bilge and ballast pumping and tank washing operations.

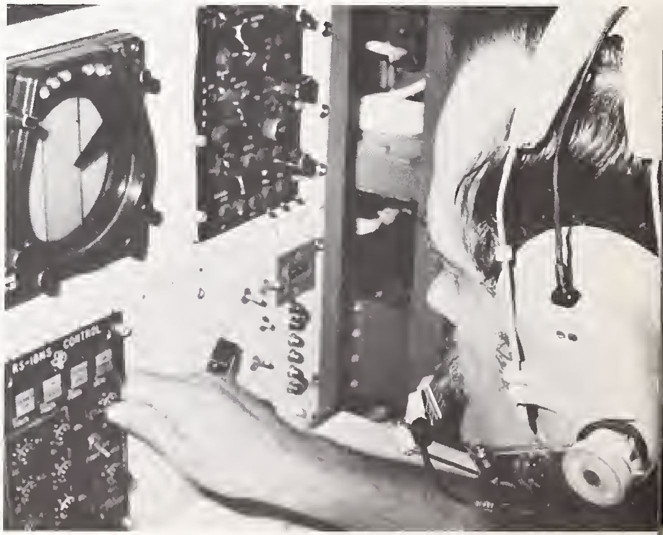
Polluters who did this at night or in bad weather will now find it more difficult to get rid of oil without being detected.

Data collected by AOSS can be used to prosecute violators and, if convicted, they face civil penalties. They can also be charged for the clean-up cost.

At present, the AOSS manpower is limited to five petty officers trained as aviation electronics technicians or marine science technicians. As the program develops, a wider range of personnel will be selected for duty with the AOSS team.

Since development and testing of AOSS began in 1972, three violators have been caught and feelings run high among the Coast Guardsmen who operate AOSS that future potential polluters will become more fearful of the huge C-130s.

So, as the nation continues to work against pollution, the Strike Teams and AOSS will be right in the thick of it, wherever a dirty work mission may come up.



Petty Officer First Class Neil H. Christian, a Coast Guard marine science technician, sits at the Airborne Oil Surveillance System (AOSS) operators' station running a systems check of the sensor equipment. The operators' station provides real time video displays of sensor data in "rolling map" format. The control and display provides instant target detection and computation of useful target data at the "push of a button." (Photo by Tony Delgado)

Military and the Environment

Navy

Norfolk, Va.-based destroyer USS Spruance has been given the 1976 Secretary of the Navy Environmental Protection award.

Spruance won the award in the small ship category for achievement in air, water and noise pollution control.

The ship's environmental protection achievements include disposable oil booms for oil-spill cleanup, curtailment of outside speakers on the general announcing system, industrial wastes delivered to disposal points and never disposed of at sea, sewage processed by the vacu-burn system when sewage collection systems are not available, garbage processed by garbage grinders, trash compacted and disposed of at sea in weighted-down sealed plastic bags and compressors on the ship's gas turbine engines that ensure maximum combustion.

All of the pollution systems onboard Spruance have been operated to the maximum extent possible and well beyond the legal environmental requirements.

Army

Imagine sweetening your morning coffee with the contents of your wastepaper basket, and gassing up your car with a cardboard box.

No, they can't spin straw into gold, but the scientists at the Army's Natick Research and Development Command, Natick, Mass., are working on a process for turning ordinary trash into usable products. The process is to convert cellulose wastes into energy-rich glucose sugar and a host of other food, fuel, and chemical byproducts. At the same time, the process could help solve the growing problem of waste disposal.

Cellulose is the major component in the cell walls of all plant life. Therefore, there is an almost endless supply in grass and tree trimmings, plastic scraps, sawdust, papermill waste, animal waste, wastepaper, cardboard, and similar material.

Scientists at Natick are encouraged that the process may preserve many natural resources. Products ordinarily made from these resources could be made from what we now think of simply as garbage.

Natick Research and Development Command has a pilot plant that it is using to establish data on how much the conversion process actually costs and how much refinement the engineering for that process needs.

If pilot programs prove economically successful, trash may become a top-selling commodity. Landfills and city dumps may be greatly reduced. The world's environment may be cleaner, and fuel and food shortages lessened.

Natick scientists say turning trash into cash may make the world a better place in which to live. (courtesy ARMY LOGISTICIAN).

Marine Corps

When the Marines storm a beachhead, in those first minutes and hours everything in their path is blasted, bombed or smashed. The environment takes a real beating.

When Leathernecks train for their combat mission, aggressiveness in battle is hard to simulate. Destructive techniques must be practiced and coordinated with preserving nature's delicate balance.

The Marine Corps, as do all the services, has a limited area in which to practice and learn the techniques of battle. The constant reuse of these training areas requires that they be preserved to ensure they will continue to be available. Along with maintaining training areas, comes a parallel responsibility to protect the land.

What is the Marine Corps doing to live within its environment? Through the efforts of major commands, to provide the leadership in the continuing effort to protect and enhance the quality of the nation's environment, a balance in nature is being supported.

Environmental responsibilities are featured in two primary subprograms: natural resources management and environmental quality. The management effort includes soil and water conservation, fish and wildlife preservation, endangered species protection, forestry management, outdoor recreation and protection of archeological and cultural remains. Quality efforts are concerned with air, water and noise pollution, and the assessment of Marine Corps actions which impact on the environment, such as large scale training missions, testing or major facility construction.

The Marine Corps, which manages approximately 900,000 acres of land, has been engaged in a formal program of natural resources management since 1962. Before that, individual installations engaged in programs where local interests and suitable resources were prevalent. In 1972, the Marine Corps developed its program which is organized in coordination with local, state and federal interests.

Most significant have been the efforts of the Marine Corps Bases at Camp Pendleton, Calif., and Camp Lejeune, N. C., and Marine Corps Air Station, Kaneohe, Hawaii. All have been cited for outstanding environmental management by the Department of Defense.

Camp Pendleton stands out in the overall Marine Corps environmental program with its work in the following:

Grasslands - Native perennial grass which existed prior to Spanish exploration is being preserved.

Cultural/Historical Sites - Indian sites have been identified, as well as paleontology and geology study areas.

Coastal Beach - About 17 miles of beach are used for tactical training, recreation and natural resources management. The Santa Margarita delta supports 125 bird species. Nearly 30 acres of beach provides a nesting site for the California Least Tern, an endangered species.

Water Resources - The base receives all its water from its own sources, primarily the Santa Margarita River. The river has a watershed area of approximately 750 square miles.

The Marine Corps, through its aggressive programs and policies, has established another beachhead and is fighting with determination to live within its environment.

Restoring the natural balance

story by amw

They came in the early 1940s, bulldozers, scrapers and other mammouth machines, gouging into the lush Mohawk Valley of central New York state. This was the beginning of Griffiss Air Force Base.

Low cedar swampland was cut over and filled; creeks were diverted and channelized. Large aspen and birch tree stands were removed and the thin layer of topsoil stripped, exposing glacial sands to wind and water erosion.

As the base matured and grew, more and more of the natural setting disappeared. Remaining woods were cleared for new development, creeks were forced to flow through concrete conduits. Only traces of wildlife and wildlife habitat remained on the edges of the base. Common animals - gray squirrels, beaver, cottontail rabbits, white-tailed deer, wild turkeys and ducks - fled.

Restocking base ponds is a yearly affair. This scene takes place at almost any Air Force base throughout the world. (U. S. Air Force Photo, Griffiss AFB)

A shaded pool is just one of the many "quiet" spots around "The Grif." (U. S. Air Force Photo)

Today, the Air Force is working to correct the ravages of early construction and restore much of the base's 3,800 acres to a natural state without interfering with its mission. Griffiss supports the 416th Bombardment Wing with its B-52 Stratofortress and KC-135 Stratotanker aircraft, in providing an immediate and sustained long range bombardment and refueling capability world-wide.

By the late 1950s only six per cent of the total base land mass remained in a natural state. Today, 20 per cent of the base is in a natural state or headed that way.

Natural resources conservation is common ground for five programs - fish and wildlife management, forest management, landscape development, outdoor recreation and land management.

"The Grif" (as it is called locally) has, through its **land management** program, increased the land acres managed by the Forest Management plan, built more playgrounds on base, increased the number of acres of land managed as fish and wildlife habitat area and constructed asphalt and concrete curbing to protect turfed areas along roads, driveways and parking lots from wheel damage. Buildings have been torn down and the areas have been returned to a natural state; unused hardtop pavement has been removed and the area planted with grass and trees. Salts applied to base roads and parking areas for snow and ice removal have been used sparingly to lessen turf replacement needed to repair damaged grass areas near roadways.

The **fish and wildlife program** has resulted in a new management plan for the conservation and management of fish and wildlife resources. A new cooperative agreement for fish and wildlife conservation and management between the U. S. Department of Interior and the base has been initiated. A natural resource study in the Mohawk Pond area is underway to determine potential uses of the area for wildlife habitat and outdoor recreation. Reclamation of a former sanitary landfill site for use as a wildlife refuge has begun.

Additionally, wood duck nesting boxes have been built; seedlings planted, wildlife habitat improvement plans have been developed and larger trees, shrubs and vines selected for winter food value to birds and wildlife have been planted. Base fish ponds are restocked annually, while the yearly program of selected tree removal in wildlife habitat areas continues.

From this — the old base gym at Griffiss is torn down and the area will soon become...... ↓

Some of the progress in the **forest management program** includes the planting of conifer seedlings on previously improved and semi-improved grounds, selected thinning of 10-year-old conifer plantations by live removal of plants for use in landscape and street tree planning and the thinning of a native birch hardwood stand. The total amount of land within the forest management plan has been increased.

Nursery trees from forest plantations on base have been transplanted while other nursery trees have been purchased or donated for landscape management. An old sanitary landfill has been covered with new topsoil and other exposed soil has been reforested. A mass planting of evergreens to form a buffer in the jet engine test cell (where jet engines are tested, creating a noise problem) area to redirect and suppress engine noise has been completed. Trees and shrubs have been planted in the family housing area, noise and visual buffer zones to protect base and community areas from environmental hazards have been established and buildings have been torn down and the site returned to lawn and natural plantings.

Personnel at Griffiss have also benefited from its environmental program. Outdoor recreation areas have been improved. For example, a 21-acre winter sports complex which includes a ski slope, ski lodge, rope facilities, sledding and toboggan slopes and ice skating rinks have been built. New playground equipment has been installed. Baseball and softball diamonds and outdoor basketball and volleyball courts have been built. An off-road vehicle plan shows trails and recreation areas for use by snowmobiles and motorcycles. A 15-acre motorcycle area on an abandoned sanitary landfill has been developed. An unused portion of airfield pavement has been designated for use by both base and community personnel in flying radio-controlled model airplanes.

A 95-acre tract of forested lowland woods, separating the operations area and family housing, is centrally located on base. The area is full of trails and roads. Here grow more than two dozen species of plants such as lycopodiums, trilliums and jacks-in-the-pulpit which are protected by New York state law. Many species of ferns and a hundred different species of wildflowers, as well as poison ivy, also grow abundantly.

Although no more than 1,000 feet from a runway used by B-52 bombers, KC-135 tankers and F-106 fighters of the New York National Guard, very little noise penetrates into the woods. The thick groves deaden and screen noises providing a sound barrier. This type of noise abatement is so effective it is to be tried on other areas, co-existing with safe operational standards and security measures.

This sounds like an extraordinary program, and it is. But it works. Griffiss won the Air Force's Thomas D. White Environmental Protection Award and the Strategic Air Command's Natural Resources Conservation Award for small bases (under 5,000 acres in size) and shared the Environmental Quality Award with Vandenberg AFB, Calif.

Griffiss' program is under the direction of Lou Maggi, chief of the Civil Engineering Squadron Design Section. Bruce H. Mero, Natural Resources manager, works fulltime overseeing the program.

''The Grif'' has come a long way in giving back to nature what was nature's in the beginning. Taking a tour of restored areas impresses the visitor with the magnitude of the program and the workers' dedication to make the base as harmonious with its environment as the mission will allow.

Overlooking "The Grif" runway from the ski chalet. (U. S. Air Force Photo)

All the effort paid off when the Department of Defense named "The Grif" as recipient of the 1976 Environmental Protection Award.

"If I could do it, the only way you would know a military base existed here at all would be when you see the plane in the air," vows Mero, "you wouldn't hear it or see it before then." "The Grif" is pursuing that goal.

Deer at Tyndall AFB, Fla., appreciate the work done in natural resources conservation by that base. (U. S. Air Force Photo)

When jet fuel is unloaded from barges at Tyndall this rig is placed around the barges to prevent spread of any oil spill. (U. S. Air Force Photo by Sgt. James S. Campbell)

Power from the sun

"America's hope for long-term economic growth beyond the year 2000 rests on renewable and virtually inexhaustable sources of energy, such as solar and geothermal energy. The Government will promote aggressively the development of renewable resources."

This statement — from President Carter's proposed energy plan — expresses the Chief Executive's concern about the use of solar energy and the Government's part in developing such renewable resources.

Today, the military is pioneering the installation of solar heating in family unit housing. For example, the Army Corps of Engineers plans to build family units at Ft. Polk, La., some of which will have solar-assisted heating and cooling units.

Two soldiers have recently been certified in newly created jobs as "military solar furnace operators" at White Sands Missile Range, N. M. The missile range solar furnace is the largest in the U. S. and second largest in the free world. It is being used for a wide variety of tests ranging from a study of oxide coatings by the University of Arizona to tests of heat resistence limits of bomber windshields by the Air Force.

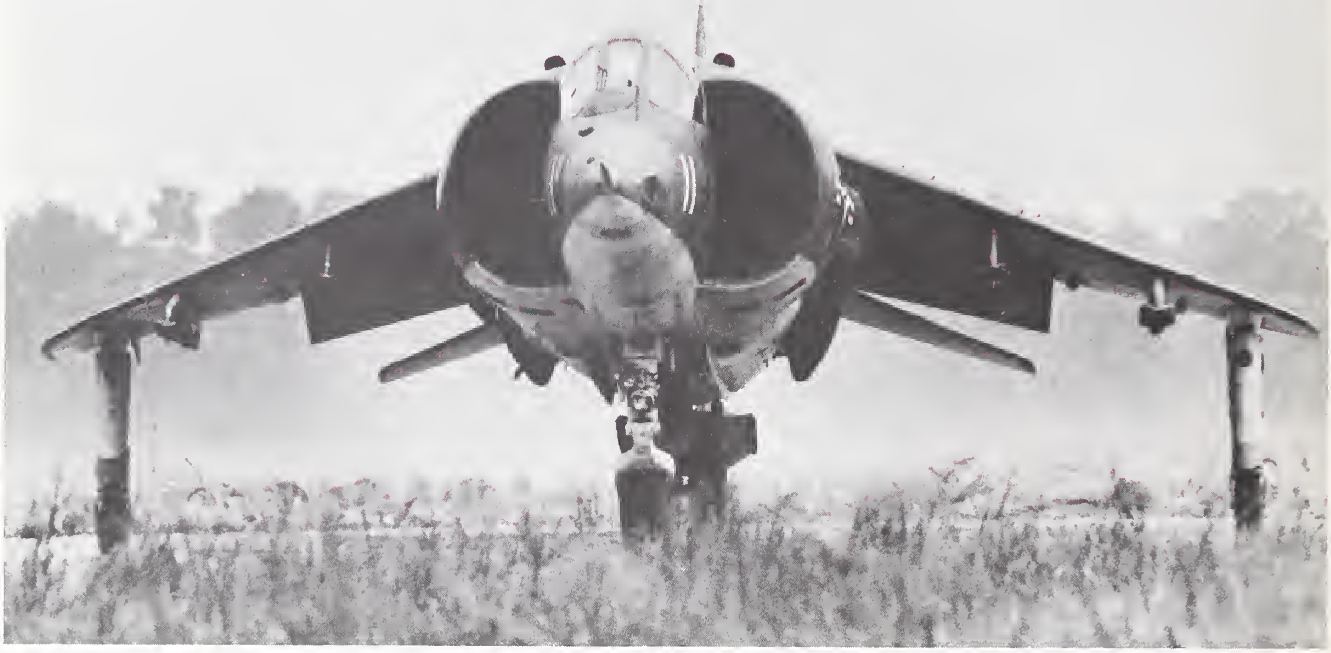
At Gila Bend, Ariz., the Air Force will soon construct 40 solar heating and cooling units. An active duty family has lived in a solar-assisted house at the Air Force Academy, Colo., for a few years. The Navy plans to construct 20 solar-operated houses at Newport, R. I.

Solar-heated houses collect solar energy and store it for use when needed.

In fulfilling the Government's part in "development of renewable resources," much of the know-how about solar energy will come through on-going research and development by the military.

Ducks at Charleston Army Depot, S. C. applaud the military's conservation methods in maintaining ponds such as this in a natural state. (Photo by Milt Putnam, Naval Public Affairs Center, Norfolk, Va.)

Harrier goes to the bush



FIRST FORWARD SITE for AV-8A Harriers, located at LZ Lark, Camp Lejeune, N. C., hosts its first aircraft, piloted by Major Terry Mattke of VMA-542, 2d Marine Aircraft Wing, Marine Corps Air Station, Cherry Point, N. C.

Story and photos by

SSgt. Tom Griggs

CAMP LEJEUNE, N.C. — If you ever see a Marine Corps Phantom or Skyhawk jet attack aircraft attempt to set down in a helicopter landing zone, you know the pilot is either crazy or the gutsiest Marine zoomie alive — for a few more seconds. But to Harrier pilots, it's just part of the business.

Stationing themselves in small zones close to combat troops is part of the operational concept of the AV-8A Harrier, the Corps' unique vertical and short takeoff and landing (VSTOL) close air support jet. And recently, the 2d Marine Aircraft Wing (MAW), Marine Corps Air Station, Cherry Point, N.C., has been testing the first such zone, or tactical forward site.

Major Terry Mattke, one of the "Tigers" of Marine Attack Squadron (VMA) 542, piloted his AV-8A to Landing Zone (LZ) Lark here to conduct the first vertical landing into the first forward site. Right on schedule, Mattke and his Harrier came in low over the trees surrounding Lark, circled the LZ and slowed to a hover over a 96-square-foot aluminum pad.

As the aircraft slowly descended vertically toward the aluminum pad, its turbofan engine screamed and roared. Dust and small debris swirled up around the pad, creating a miniature cyclone. Observers covered their ears and turned away from the blasting fury until the wind, noise and dust finally subsided.

HELPING HANDS from Marines of "B" Platoon, Wing Engineers Squadron 27, help roll an AV-8A across fiberglass matting and into one of the "hides" at the first Harrier tactical forward site.

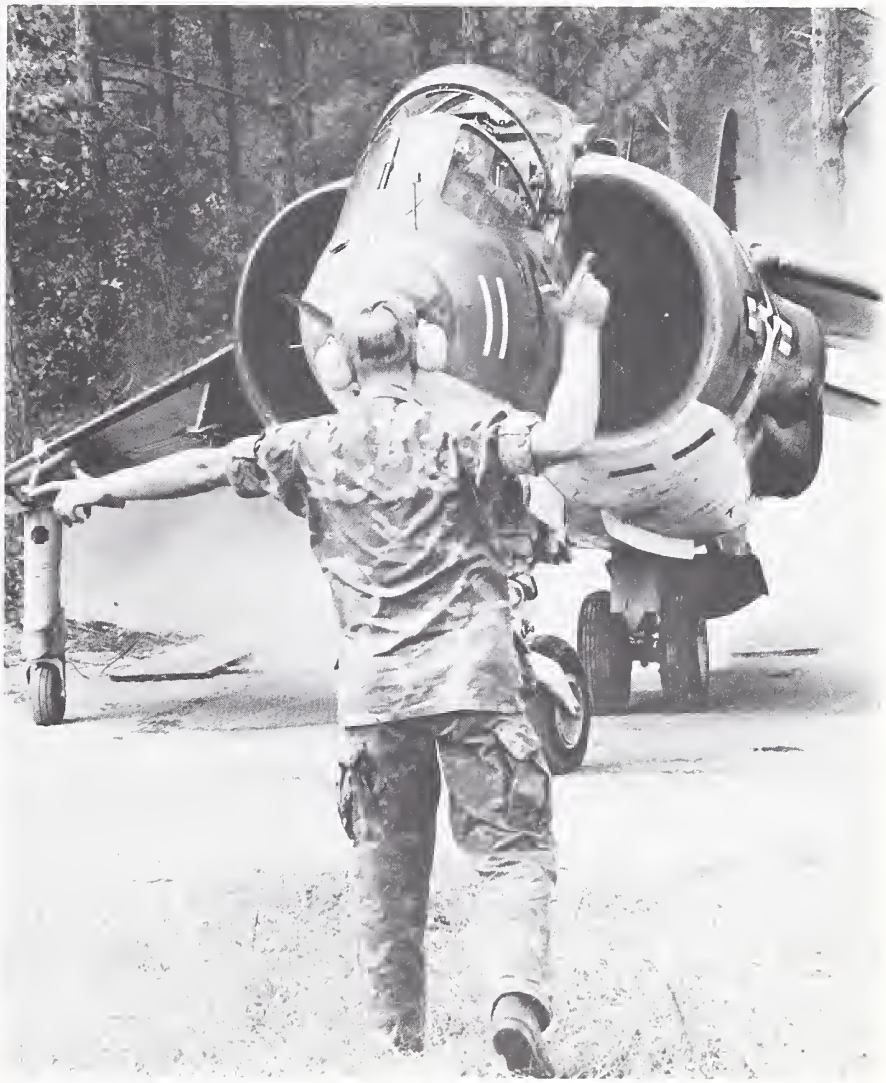
"You just witnessed a first!" shouted Lieutenant Colonel Jim Lary.

Lary is the man behind the groundwork of this new Harrier training, which has been dubbed Project Grass Operations. Tasked as project officer from the 2d MAW, Lary has spent his share of time in the seat of an AV-8A and was formerly the commanding officer of the training squadron.

The joint Camp Lejeune and Cherry Point project has involved the surface "manicuring" of a 1,250-foot grass strip for the aircraft's short takeoffs, the construction of a 96-square-foot aluminum pad for vertical operations, and construction of several "hides," small niches under cover of trees cleared out for parking, refueling and rearming the aircraft.

Two more forward sites were selected. One has no grass strip and only one to two hides. Takeoffs and landings are strictly in the vertical mode because only 30 feet on each side of the landing pad has been cleared of trees. The other site is adjacent a hard-surfaced road from which the pilots will practice short takeoffs and landings.

Harrier's sorties in the bush here will actually be perfecting what Marine aviators already know — that, unlike



APPLYING A TOUCH of the 21,500 pounds of thrust available, Major Terry Mattke taxis his Harrier out of a "hide" at LZ Lark, directed by plane captain Sergeant James Settlemyre.

"...the pilot is either crazy or the gutsiest Marine zoomie alive..."

other close air support jets, the concept of employing the AV-8A puts it well forward in combat, near the front lines and close to ground forces to offer almost immediate response time.

How fast is "almost immediate"? Past training exercises have documented the Harrier's capability in the field to respond to a request from ground forces with "bombs on target" in less than four minutes, according to 2d MAW. Sound pretty fast? To a Marine rifleman under fire it would sound beautiful.

The workout at LZ Lark included several vertical takeoffs and landings on the pad, and each hide was "tried on for size." Mattke also made one run down the grass strip, but didn't use it for takeoff. At the end of the day, Lary "was more than pleased," and Mattke agreed the site was "better than we expected." Project Grass Operations was looking good.

LtCol. Lary prepared the LZ Lark site — as he will the other two — with the help of some 20 Marines from "B" Platoon, Wing Engineers Squadron 27, Cherry Point. He said he spent three or four days just walking around the zone considering the best spots for the hides and inspecting the drainage around the grass strip and landing pad. To make each hide fit each AV-8A like a glove, Lary used a giant template the exact size and shape of a Harrier.

Then the engineers went to work, removing only the necessary trees, practically carving out the concealing hides. Next came metal planks to support the landing gear. Finally the matting was rolled out. "Only fiberglass matting is used for taxiing and turning in front of the hides," engineer Gunnery Sergeant Dexter Slater said. "It merely provides a hard surface. But aluminum is placed on top of the fiberglass on the landing pad to resist the aircraft's thrusting heat."

The senior engineer, Second Lieutenant Jimmy Smith, said the surface preparation of the 1,250-foot grass strip took more than just a quick once-over with a mower. Some holes and bare dirt spots called for a little more "massaging."

"The main landing gear could be damaged if the aircraft hit a hole too hard," Smith explained. "And the Harrier's thrust would probably excavate the dirt areas."

To remedy the problems, first the holes were filled. Then the freshly-covered holes and the bare spots were covered with canvas and mesh. Smith said pieces of unserviceable tents were laid on top of the open dirt and held down with metal stakes. Cyclone fencing was then placed on top of the canvas and also staked down. He added that a second benefit of the olive drab canvas — besides keeping the strip from eroding — is its camouflaging effect.

ROLLING OUT cyclone fencing on the LZ Lark grass strip is Lance Corporal Dennis Kindred, "B" Platoon, Wing Engineers Squadron 27. Mesh fencing — and the canvas under it — prevents erosion of bare spots on the strip. The fencing was later painted olive drab.

"We borrowed the idea from the British," Smith said. "It worked for them, and hopefully it will work well for us."

According to Lary and Major Mark O'Connor, the strip has worked well. O'Connor, operations officer, VMA-542, made the first grass strip takeoff. It worked perfectly.

VMA-542 did its thing again during an impressive exercise at LZ Lark in front of the critical eyes of Commandant of the Marine Corps General Louis H. Wilson. Three Harriers zoomed over the LZ, banded around the north end, and the pilots quickly brought the planes down and scooted into hides.

Several minutes passed between the time the AV-8As appeared on the scene and the moment camouflage netting dropped in front of the hides. Several more minutes later, two of the Harriers emerged from their "cubby holes" and executed takeoffs from the grass strip.

LtCol. Lary pointed out that while the site preparation here took almost two weeks, the time and manpower involved

THE "TIGERS" of VMA-542 display the unique capabilities of the AV-8A Harrier during a demonstration at Camp Lejeune's LZ Lark.

in an actual combat situation would be considerably less. Ten to 12 Marines can build a site in a matter of days or hours, depending upon the size. ''But remember,'' Lary said, ''this one was constructed to last for future training operations.''

In a real theater of war, a landing site supervisor, the engineers and materials would be flown in by helicopter. In a minimum of time, Harriers would be in a forward position only 15 to 20 minutes away from ground forces. As far as the rifle company commander is concerned, those aircraft would be only three to five minutes away. And from the enemy's viewpoint, Lary notes, Harrier's payload would be making life miserable about the same instant the aircraft was seen screeching past at almost 600 miles per hour.

HARRIER'S HIDEAWAY is shown to Commandant of the Marine Corps General Louis H. Wilson (right) by Major General Richard E. Carey (left), commanding general, 2d Marine Aircraft Wing, and Lieutenant Colonel Jim Lary, project officer, Project Grass Operations, during a visit by the Commandant.

THE BOSS of the preparation of the Harrier tactical forward sites at Camp Lejeune, N. C., inspects the camouflage netting in front of a "hide." Lieutenant Colonel Jim Lary is the project officer of the new Harrier training, dubbed Project Grass Operations.

Lary, a veteran of combat missions in Vietnam in both helicopters and jets, said the tactical forward sites here are a blend of both tactical and training aspects. A little more matting here, a couple of drive-through hides there. He remarked, ''We've just added some of the frills. You wouldn't have these niceties in combat.''

So, in essence, Harrier is going to the boonies here. It's part of its original concept of operations, but it has taken time to test its capabilities and potential this far. As with any aircraft, according to Lary, Harrier's full potential will be reached only after continual development and familiarization by the Marine aviators who fly and maintain it. ''Before you learn how to run,'' LtCol. Lary reasoned, ''you have to learn how to walk.''

A common meeting ground

An artilleryman/golfer in Georgia; a truck driver/tennis player in Oklahoma, and a company commander/slowpitch softball player in Alabama. What common bond do they have? All are active duty soldier/athletes.

When Private Alfred Morton isn't firing artillery rounds with his unit at Ft. Stewart, Ga., he's firing sub par rounds on the golf course.

When Specialist Four Mary Ballengee isn't smashing tennis drives at her opponent, she's a truck driver at Ft. Sill, Okla.

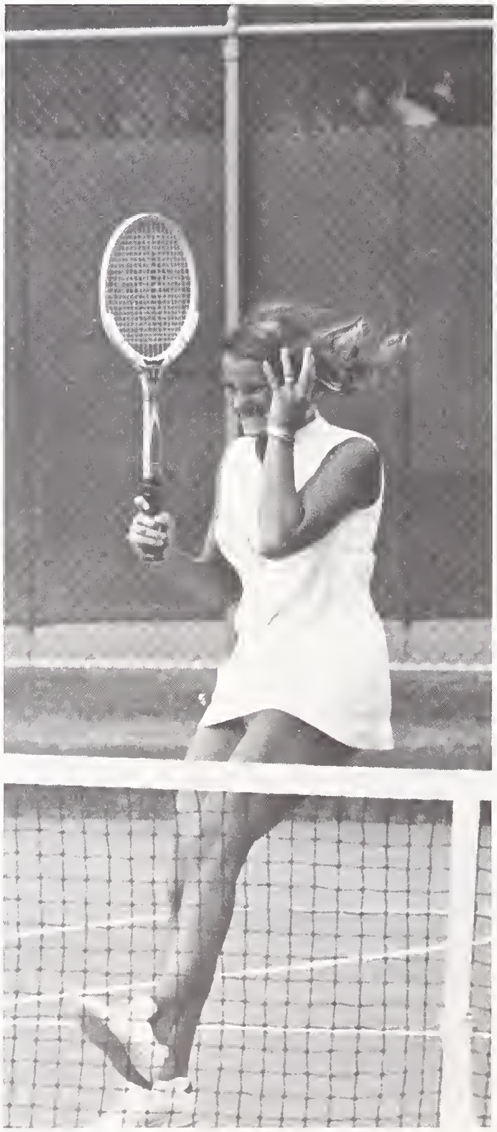
While not commanding Company C, 10th Military Police Battalion, Ft. McClellan, Ala., Captain Helen Lindsey was leading the post women's slowpitch softball team to victory.

Although one cannot enlist to be an Army athlete, one does not have to give up his interest in sports or forget about his dreams. Army athletes are similar to other soldiers since they, too, join for a particular job, specialty, school or unit. An athlete may perform his military duties for eight or more hours, then spend two to three hours nightly or on weekends practicing with the team or working out individually.

The sports program begins at intramural or company level offering a variety of individual and team sports - basketball, volleyball, boxing, softball, judo, archery, golf, chess, tennis. Competition is limited to an installation or specific geographic region.

Championship teams or outstanding individuals are identified in the intramural programs and progress to tournaments to determine post or installation champions. They then represent the installation in major command or regional tournaments.

After one progresses to post level competition, on-duty time as well as off-duty hours are usually reserved for practices as well as actual competition. For the period of time the athlete is attached for duty with the post team or all-service squad, he spends the majority of his waking hours concentrating on perfecting himself physically and mentally in his sport. He has little time for social activities and must be ever conscious of his eating and exercise habits and avoid anything which would be detrimental to his physical well-being.



Specialist Four Mary Ballengee grimaces after a bad shot during trials for the All-Army tennis team at Ft. Eustis, Va. (U. S. Army Photo by Sp5 Frank Dahmer)

Throughout all levels of competition, players with exceptional athletic abilities are identified, evaluated and recommended for more advanced competition (Army or interservice trials, Amateur Athletic Union, Conseil International du Sport Militaire, Pan American Games, Modern Pentathlon or Olympics). The most highly skilled athletes are selected by the Department of the Army to represent the Army or the United States.

The Army's sports program, which is voluntary, provides some of the best opportunities for amateur athletes of all skill levels to participate, regardless of age, size or rank. Athletes with minimal skill have numerous opportunities to compete and to learn new skills, while highly adept athletes can progress to national and international competition.

In some instances, the athlete has accomplished in the Army what he could not have done as a civilian. The Army provides coaches, training sites, equipment and pays for transportation of the traveling athlete while he continues to draw his full pay and allowances.

"The Army sports program has been fantastic for me," said Sp4 Mary Ellen Dixon, a cartographer with the 30th Engineer Battalion, Ft. Belvoir, Va.

"I come from a small town (Camden, N. Y.). Once you leave high school, that's it. In civilian life, unless you go to college, your sports playing days are over after high school," she added.

She played first string on the women's volleyball and softball teams for the past three years, was most valuable player in local volleyball league competition for two consecutive years, and, despite a knee operation, went on to land a spot on the 1977 Women's All-Army Volleyball Team. The All-Army squad was victorious in the State of Washington's Volleyball Class A Championships and took second place in the interservice championships held at Camp Pendleton, Calif.

Capt. Lindsey credits the Army with giving her a start in athletics in 1961.

"For my age and category," she said, "the Army offered me a better opportunity to participate in sports than I would have had as a civilian player. You have to seek out the opportunities, though."

She was a player-coach with the post team which recently captured first place in the U. S. Army Training and Doctrine Command's (TRADOC) Western Regional Women's Slowpitch Softball Tournament at Ft. McClellan. Capt. Lindsey played shortstop, collected five hits, three for extra bases and was named the tournament's most valuable player.

Last year, the 36-year-old Labelle, Pa., native played first base for the All-Army softball team which captured second place in a civilian tournament in York, Pa.

For young people who want to play sports while on active duty, Capt. Lindsey said, "Don't be afraid to participate. Do your best but above all, good sportsmanship is the main thing."

Intense concentration shows on the face of Specialist Four Mary Ellen Dixon as she practices volleyball at Ft. Belvoir, Va. Sp4 Dixon hopes to continue her sports activity in Hawaii next year — she recently reenlisted for duty with the 652d Engineer Battalion (Topographic) (Army). (U. S. Army Photo by Nate Chang)

The path to victory is not always an easy one. Private Morton took top honors by one stroke in the 1977 Worldwide Interservice Golf Championships in Long Beach, Calif., with an even par 288 over the 18-hole course. This is quite an accomplishment considering that the 22-year-old soldier has been in the Army for little more than a year and was competing against the best golfers in the U. S. Armed Forces.

Pvt. Morton has been attacking the links since he was seven in his hometown, Washington, D. C.

"It was after eight years of caddying and hours of endless practice that I really began to understand the game. It's a tough individual sport, you must have both ability and desire to achieve any amount of success," he said.

Sp4 Ballengee earned her ticket to the Interservice Tennis Championships by first winning the Ft. Sill post championship in the women's division, then besting four other women to earn the second spot in the women's division on the Army team. She then competed in the one and a half week all-Army tennis trials at Ft. Eustis, Va. At the end of the play, those with the best records in each division made the team. The Tuscon, Ariz., native was the only enlisted member of the 11-member Army team selected to play in the Interservice Championships at the Marine Recruit Depot, San Diego, Calif. She and her partner, Captain Joyce Read from Wildflecken, Germany, won the women's doubles finals. Sp4 Ballengee took second place in the women's singles division.

As in most military training, stamina, discipline, fitness, confidence and aggressiveness are some of the credentials of an Army athlete.

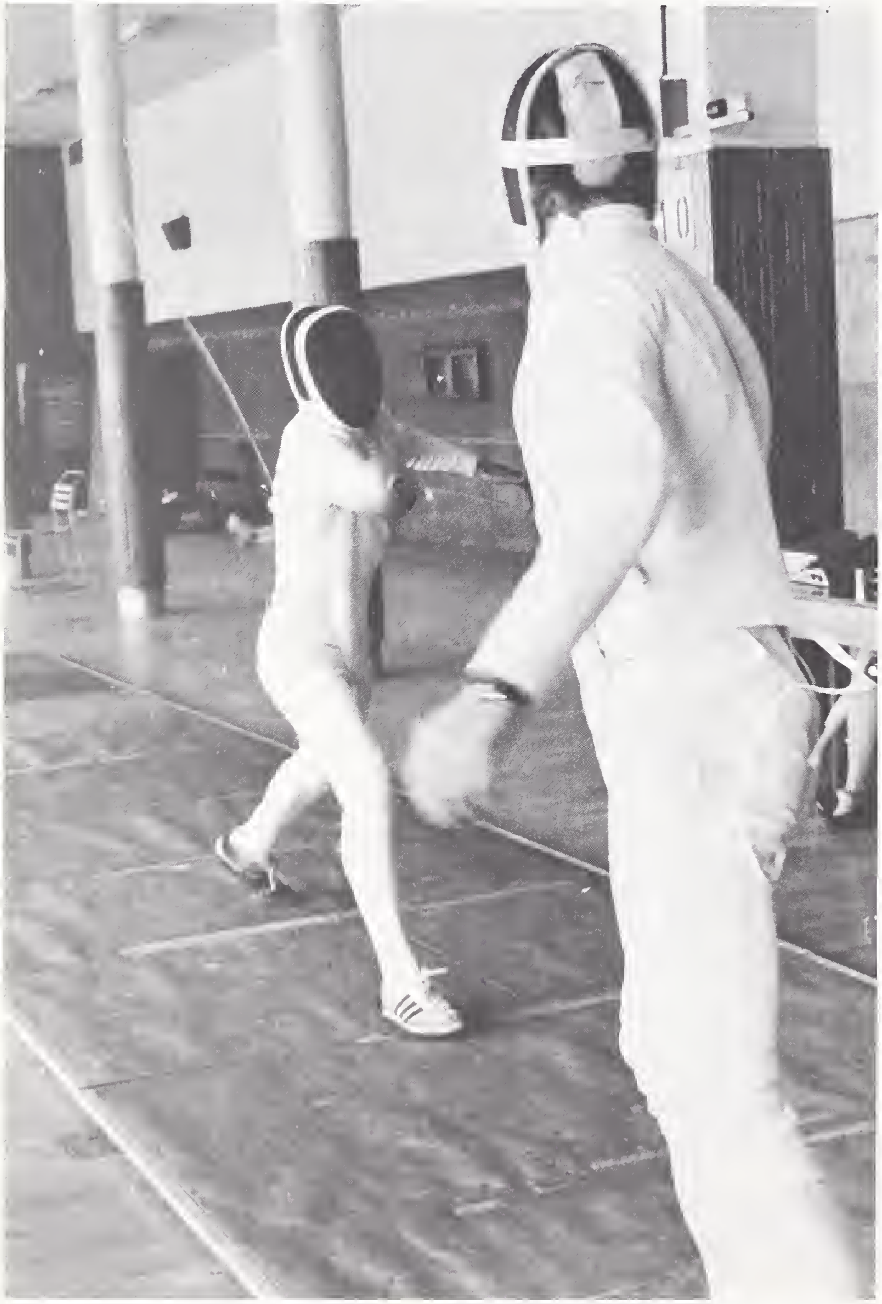
Persistence is another attribute for athletes. Sp4 Paul Lowenwirth, a physical activities specialist at Ft. Hamilton, N. Y., is already looking toward the 1980 Olympics in Moscow.

Specialist Four Lowenwirth barely missed being on the U. S. Olympic kayak team last year and already has competed in the Atlantic Division

Championships, Bear Mountain, N. Y., North American Championships in Canada and U. S. National Canoe and Kayak Championships, Rockford, Ill. He and his partner took first place in four races at Bear Mountain and topped all other entries in Canada. They didn't do as well in the Rockford, Ill., competition.

"These races are a step up. It's a four-year process to make the team. It's not like you go like hell for one year. It's 11 months a year for four years," the Bronx, N. Y., native emphasized.

Lowenwirth admits to being obsessed with kayaking. "After all, you don't get paid for it. It's boring and means five to six hours of hard work every day....There's no partying when you're in training. Even when you win, it just means coming out of the water, shaking hands and getting an award. No one ever remembers you," he concluded.


Epee fencing at the U. S. Modern Pentathlon Training Center, Ft. Sam Houston, Tex. (U. S. Army Photo)

Staff Sergeant Jim Benning demonstrated determination and true grit when he had to switch his sports emphasis. He was to have signed a contract to play professional baseball until an injury in Vietnam hampered his running ability. While stationed at Ft. Dix, N. J., he devoted all his spare time and energy learning to play golf.

"It's something I liked. It's something I chose. When you like something, you work harder at it."

Work harder and excel he did. He won the Nuremberg (Germany) Invitational in 1975 and 1977; the Stuttgart (Germany) Invitational in 1975; the Ft. Dix championships for three consecutive years (1970-72); the 1977 All-Army Open Division Golf Trials and turned in a record-breaking 299 total in the TRADOC Eastern Regional Golf Championships.

Now the golf pro at Ft. Dix, Jim works seven days a week, giving golf lessons, supervising the pro shop and inspecting the work of the maintenance crew. He is not exempt from military duties.

"I love what I'm doing," he said. "The long hours don't bother me."

Until Sergeant Dennis Shallenberger came along, the Army had never entered a team in the National Field Archery Championships. A student at the U. S. Army Signal School, Ft. Gordon, Ga., Sgt. Shallenberger led the All-Army squad to the team championship in the Nationals in Oxford, Ohio.

To prepare for competition and to sharpen his skills, the young sergeant goes through a daily exercise routine which includes weight lifting, calisthentics, fast-moving sports such as racquetball and, of course, plenty of archery.

"Lifting weights, like bench pressing and curls, is important because it tones the upper body muscles, which helps maintain a consistent draw on the bow," explained Shallenberger. "Sports like racquetball and working out with the speed bag helps develop hand and eye coordination."

Probably the most grueling of all competition is the Modern Pentathlon in which the participant must master five sports: horseback riding, epee fencing, .22 caliber pistol shooting, swimming and cross country running. This exacting competition means that a pentathlete must keep mentally alert and physically fit, call on all his reserve energy and push already aching muscles in the five-day endurance test. A women's division was established in pentathlon competition for the first time this year.

The Modern Pentathlon, which is a major event of the Olympic Games, features the top civilian and military athletes worldwide. Both the Modern Pentathlon National and World Championships were held this year at the U. S. Modern Pentathlon Training Center, Ft. Sam Houston, Tex. One of the top U. S. pentathletes is Specialist Four Mike Burley, who is assigned to the Center. The 24-year-old Burley, set an all-time American Modern Pentathlon record of 5,400 points as he led competition in the national championship.

His performance included first place finishes in the running and fencing events, third place in swimming and sixth in riding.

The young soldier thrives on competition. He was a 1975 National Triathlon (running, swimming, pistol shooting) Champion, a representative on the 1975 World Pentathlon Team and former U. S. Olympic team member.

Athletes actually become goodwill ambassadors when they reach the level of international competition such as the CISM, Olympics or Pentathlon. Their travel schedule sounds like an ad for a travel agency. Their opponents resemble a meeting of the United Nations. For instance, a powerful U. S. Armed Forces team swept seven straight games to capture the 24th Annual CISM Basketball Championship in Teheran, Iran, in September. Nine young Army enlisted men played for the U. S. team which scored victories over Kuwait, Syria, Senegal, Iran and Greece. CISM competition features a variety of sports — judo, wrestling, soccer, orienteering, and boxing among them.

story

by

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Off duty, Sergeant Dennis Shallenberger electrifies audiences with his prowess with the compound bow. (U. S. Army Photo)

On duty, Sergeant Shallenberger attends the Strategic Microwave Systems Repair Course at Ft. Gordon, Ga. (U. S. Army Photo)

Sports are the opposite of war and helps bring nations closer together. In international meets, opponents are sometimes those nations whose politics, customs and beliefs are so diverse that sports are the only common meeting ground.

Specialist Five Clenton Cochran, a truck driver at Ft. Bragg, N. C., was the only gold medal winner for the U. S. when he decisioned a heavyweight boxer from Nigeria at the CISM meet in Bangkok, Thailand. He aptly described the Army Sports Program when he said, "It was an honor to represent my country at the CISM games. I was just happy to be the one to come away a winner."

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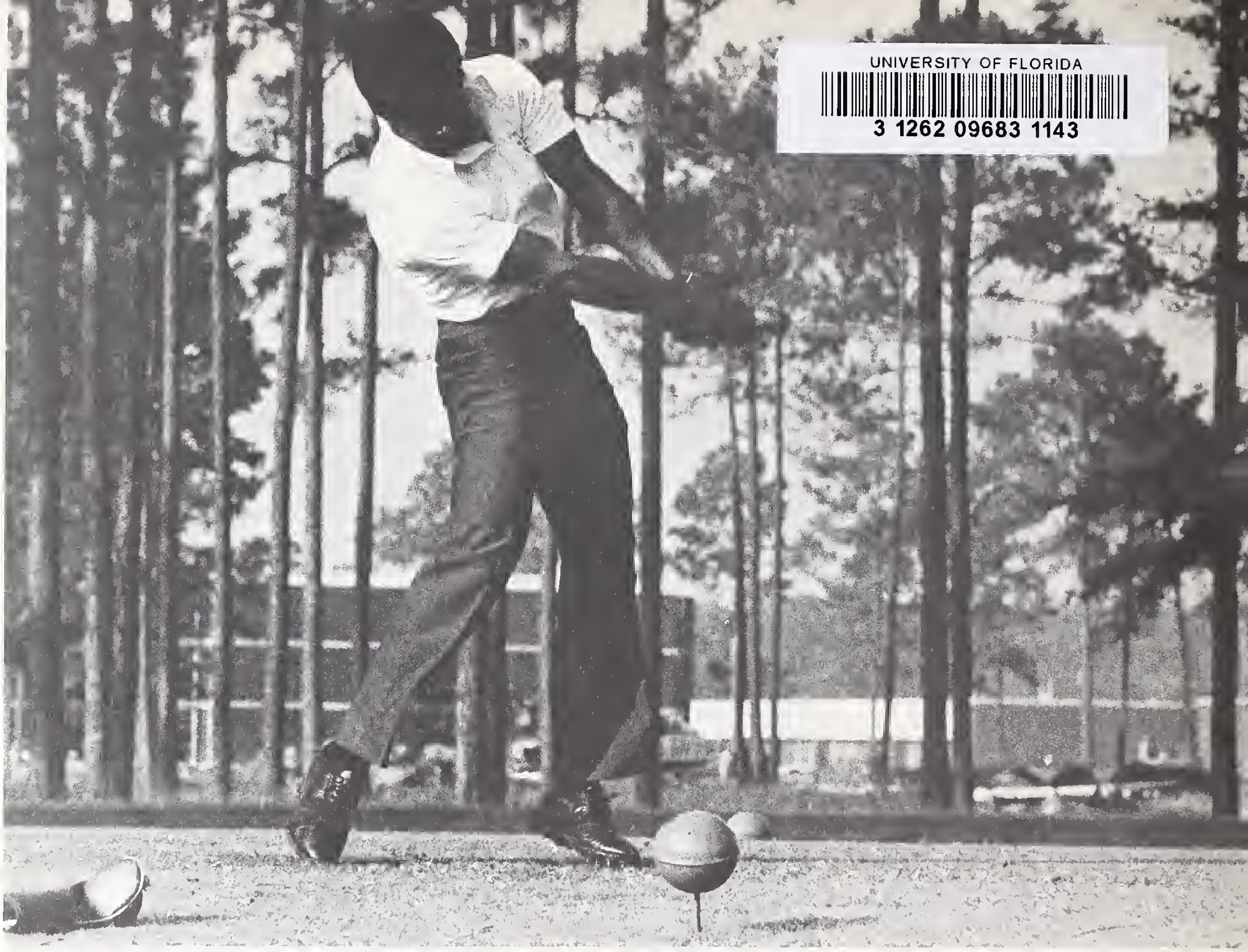

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